

**Proposed Future Actions
State of River Report
Draft - January 14, 2008**

Expand and Increase Research and Characterization Activities

1. Expand sustained monitoring of toxics and their impact on salmon, humans, and other species who depend on the river in order to assess trends and changes over time for the Columbia River Basin (USGS, NOAA, EPA, States)

- **Emerging contaminants, other priority toxics**
- Develop analytical techniques for emerging contaminants such as Pharmaceuticals and personal care products and PBDEs
- Above Bonneville Dam
- Snake River in Idaho

2. Estimate the toxic loadings of contaminants of concern to the Columbia Basin (EPA/States):

- This will help to start to answer three questions
 - What toxics are coming into the Columbia Basin?
 - From where?
 - Where are they going?
- This entails identifying the sources of the contaminants of concern
- Obtaining loading data
- Describe the relative contribution from the major sources and pathways and to the extent possible quantify the relative contributions

2. EPA/NOAA: Develop an accessible database for the Columbia Basin

- Inventory all possible toxics data sets
- Identify relevant database
- Compile and develop database

4. USGS: Assessing the health of fish using biological markers

- The majority of studies in the Columbia have focused on the health of humans and wildlife.
- Very little has been done to assess the health of the fish and other aquatic organisms.
- In order to evaluate the health of fish and aquatic organisms, studies would be conducted using reproductive and biochemical endpoints (e.g., gonadal histopathology; Hepatic ethoxyresorufin-O-deethylase (EROD); and vitellogenin)
- These biological markers are capable of documenting exposure and effects from the contaminants of concern.

5. USGS/States: Mercury contamination

- Several studies have identified mercury accumulation at levels of concern in fish in the Columbia Basin
- Recent studies have shown methyl mercury production in wetlands across the country.

- Many current efforts are underway to restore wetlands without first assessing the potential for the occurrence of methyl mercury production in the wetlands
- Several wetlands would be monitored to determine whether methyl mercury is accumulating in the fish.

Increase Toxic Reduction Actions

1. WA: TMDLs for Yakima (DDT), Okanogan (DDT and PCB), Wenatchee (PCB and pesticides), Walla Walla (pesticides and PCBs), and Spokane (PCBs)

- Focuses on implementing BMPs to reduce soil erosion from agricultural land.
- Work with conservation districts.

2. OR: Expand Pesticide Stewardship Program, Pesticide Take Back Program, and Pharmaceutical Take Back Program

- Initial programs have been successful.
- Costs are about \$35K per Pesticide Stewardship Program and about \$20 per Pesticide Take Back Program
- The Pharmaceutical Take Back program is just getting underway

3. ID: Develop Baseline Data for Contaminants of Concern

- Idaho has limited data on toxics and registered pesticides and water quality
- Idaho would establish the baseline conditions for several contaminants of concern in major watersheds
- Idaho would also conduct sampling of major agricultural and urban watersheds for pesticides

4. Clean up and dispose of contaminated sites along the Rver.